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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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09/693,276

10/20/2000

Kenneth R. Owens

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01/18/2006

BAKER BOTTS L.L.P.

2001 ROSS AVENUE

SUITE 600

DALLAS, TX 75201-2980

EXAMINER

TON, DANG T

ART UNIT

PAPER NUMBER

2666

DATE MAILED: 01/18/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	09/693,276	OWENS ET AL.	
	Examiner	Art Unit	
	DANG T. TON	2666	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 18 November 2005.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-20 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-20 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

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1. A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on 11/18/2005 has been entered.

2. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 1,2,4, and 8-20 are rejected under 35 U.S.C. 103(a) as being unpatentable over McAllister et al. (newly cited 6,215,765).

For claims 1-2,4, and 8-20, McAllister et al. disclose routing in network with static routing tables comprising:

establishing a downstream working path (see primary route in figure 1) for data traffic that includes the first data switch (see box 1 in figure 1) and the second data switch (see box 2 in figure 1);

establishing a down stream protection path(see alternate route in figure 1) associated with the working path;

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establishing an upstream reverse notification path (see crankback signal to node A in column 3 lines 12-13) for signal traffic separate from the protection path and associated with the working path;

routing a first message from the second data switch to the first data switch via the upstream reverse notification path, the first message providing a fault status indication for the working path (see column 2 lines 30-40);

wherein the upstream reverse notification path co-incident with the working path through the network (see column 2 lines 30-40);

wherein the data switches are ATM switches (see column 2 line 53)

wherein at least one of the data switches maintains a table of incoming link and path identifiers and of outgoing link and path identifiers (see column 2 lines 51-58);

wherein the first data switch is a protection switch element (see box 1 in figure 1);

wherein the second data switch is a protection merge element (see box 2 in figure 1);

a destination switching system operable to receive downstream data along a working path (see primary route in figure 1) through at least one data switching system that is upstream from the destination switching system; switching system, the destination switching system operable to receive the downstream data along a protection path (see alternate route in figure 1) through at least one data switching system that is upstream from said switching system in response to a failure in the working path (see column 2 lines 30-40);

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a first upstream switching system operable to provide the downstream data to the destination switching system over the working path ;

a first upstream data link operable to couple the destination switching system to the first upstream switching system, the upstream data link being separate from the protection path, the upstream data link operable to send an upstream reverse notification message (see crankback signal to node A in column 3 lines 12-13) from the destination switching system to the first upstream switching system, the upstream reverse notification message providing a fault status for the working path (see column 2 lines 30-40) ;

where the destination switching system maintains a table identifying upstream switching systems including the first upstream switching system (see column 2 lines 51-58);

wherein the destination and first upstream switching systems are any one of asynchronous transfer mode switches that function as label switched routers, internet protocol (IP) routers, digital cross connect switches controlled by MPLS, and switches controlled by MPLS (see column 2 line 53);

means for establishing a downstream working path (see primary route in figure 1) that includes the first data switch and the second data switch;

means for establishing an upstream reverse notification path (see crankback signal to node A in column 3 lines 12-13) associated with the working path (see column 2 lines 30-40) ;

means for routing a first message from the second data switch to the first data switch via the upstream reverse notification path, the first message providing a fault status

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indication for the working path (see column 2 lines 30-40) ;

wherein the upstream reverse notification path is not co-incident with the working path through the network (see column 2 lines 30-40) ;

wherein at least one of the first and second switches includes means for maintaining a table of incoming link and path identifiers and of outgoing link and path identifiers (see column 2 lines 51-58); and

wherein the first and second switches are any one of asynchronous transfer mode switches that function as label switched routers, internet protocol (IP) routers, digital cross connect switches controlled by MPLS, and optical cross connects and switches controlled by MPLS (see column 2 line 53).

For Claims 1,2,4, and 8-20 , McAllister et al. disclose all the subject matter of the claimed invention with the exception of using MPLS in a communications network. However the MPLS is well known in the art. Thus, it would have been obvious to the person of ordinary skill in the art at the time of the invention to use the MPLS as well known in the art in the communications network of McAllister et al.

The MPLS can be implemented/modified into the network of McAllister et al since the McAllister et al do teach switches. The motivation for using the intended use MPLS as well-known in the art into the communications network of McAllister et al being that it provides much higher utilizations while maintaining the guaranteed QoS.

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claim 5 is rejected under 35 U.S.C. 103(a) as being unpatentable over McAllister et al in view of Lee et al.

For Claim 5, McAllister et al disclose all the subject matter of the claimed invention with the exception of the data switches being IP routers in a communications network. Lee et al. from the same or similar fields of endeavor teaches a provision of the cross connect switches or IP routers (see column 6 lines 9-11). Thus, it would have been obvious to the person of ordinary skill in the art at the time of the invention to use the IP routers as taught by Lee et al. in the communications network of McAllister et al et al.

The IP routers can be implemented/modified into the network of McAllister et al . by replacing switches of McAllister et al with the cross connect switches or IP routers . The motivation for using the IP routers as taught by Lee et al. into the communications network of McAllister et al being that it provides much higher utilizations while maintaining the guaranteed QoS and speeding up the system's operation.

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4. This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

5. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 3 and 6-7 are rejected under 35 U.S.C. 103(a) as being unpatentable over McAllister et al in view of Haskin et al.

For Claims 3 and 6-7, McAllister et al disclose all the subject matter of the claimed invention with the exception of a topology of the upstream reverse notification path being represented by a directed acyclical graph and digital cross connect switches. Haskin et al. from the same or similar fields of endeavor teaches a provision of a topology of the upstream reverse notification path being represented by a directed acyclical graph (see column 2 lines 28-30) and the cross connects is well-known in the art. Thus, it would have been obvious to the person of ordinary skill in the art at the time

of the invention to use a topology of the upstream reverse notification path being represented by a directed acyclical graph s taught by Haskin et al. and the cross connects as well known in the art in the communications network of McAllister et al .

The topology of the upstream reverse notification path being represented by a directed acyclical graph and the cross connects can be implemented/modified into the network of McAllister et al since the reference does teach the reverse notification path and the switches. The motivation for using the topology of the upstream reverse notification path being represented by a directed acyclical graph by Haskin et al. and the cross connects into the communications network of McAllister et al being that it provides the status of the working paths and make the system more reliable.

6. Applicant's arguments with respect to claims have been considered but are moot in view of the new ground(s) of rejection.

7. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Dantu et al. (6,532,0880 is cited to show a system which is considered pertinent to the claimed invention.

8. Any inquiry concerning this communication or earlier communications from the examiner should be directed to DANG T. TON whose telephone number is 571-272-


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3171. The examiner can normally be reached on MON-WED, 5:30 AM-6:00 PM and
Thur 5:30-9:30 A.M.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, RAO SEEMA can be reached on 571-272-3174. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

D. Ton

A handwritten signature in black ink, appearing to read 'Dang Ton' with a stylized flourish at the end.

DANG TON
PRIMARY EXAMINER